

WHAT IS CLAIMED IS:

1. A communication platform allocating bandwidth among spokes and hub beams based on user demand including:

a communication platform;

a hub beam, said hub beam allocated hub uplink bandwidth and hub downlink bandwidth; and

a plurality of spokes, each spoke allocated spoke uplink bandwidth and spoke downlink bandwidth,

wherein the sum of said spoke uplink bandwidth allocated among said plurality of spokes differs from said hub downlink bandwidth allocated to said hub beam.

2. The communication platform of claim 1 wherein said sum of spoke uplink bandwidth is greater than said hub downlink bandwidth.

3. The communication platform of claim 1 wherein at least one of said spokes is allocated differing amounts of spoke uplink bandwidth and spoke downlink bandwidth.

4. The communication platform of claim 1 wherein said communication platform dynamically re-allocates uplink bandwidth

between said hub uplink bandwidth and said spoke uplink bandwidth.

5. The communication platform of claim 1 wherein said communication platform dynamically re-allocates said spoke downlink bandwidth and said hub downlink bandwidth among said spokes and said hub beam at different times of day.

6. The communication platform of claim 1 further including user terminals located within said spokes, wherein said communication platform includes a processor, said processor receives data packets from said user terminals and reserves unused data packets as unused spoke and hub uplink bandwidth.

7. The communication platform of claim 6 wherein said processor re-allocates said unused spoke and hub uplink bandwidth among said spokes and said hub.

8. A switching system for a communication platform including a plurality of spokes and at least one hub, said switching system including:

a multiplexer allocating bandwidth among a plurality of spokes and at least one hub based on user demand.

9. The switching system of claim 8 wherein said spokes include spoke uplink bandwidth and said at least one hub includes hub downlink bandwidth and the sum of said spoke uplink bandwidth differs from said hub downlink bandwidth.

10. The switching system of claim 9 wherein the sum of said spoke uplink bandwidth is greater than said hub downlink bandwidth.

11. The switching system of claim 8 wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth.

12. The switching system of claim 11 wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth.

13. A method for dynamically reassigning communication resources of a communication system, said communication system including a communication platform, at least one hub, and a plurality of spokes, said method including the steps of:

determining a service demand for said plurality of spokes;
allocating uplink bandwidth among said plurality of spokes
and said at least one hub based on said service demands; and

allocating downlink bandwidth among said plurality of spokes and said at least one hub based on said service demands.

14. The method of claim 13 further including the step of:

switching between a first uplink bandwidth allocation and a second uplink bandwidth allocation based on changes in said service demands; and

switching between a first downlink bandwidth allocated and a second downlink bandwidth allocated based on changes in said service demands.

15. The method of claim 13 wherein said spokes include spoke uplink bandwidth and said at least one hub includes hub downlink bandwidth and the sum of said spoke uplink bandwidth differs from said hub downlink bandwidth.

16. The method of claim 15 wherein the sum of said spoke uplink bandwidth is greater than said hub downlink bandwidth.

17. The method of claim 13 wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth.

18. The method of claim 17 wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth.

19. The method of claim 13 wherein the allocation of at least one of uplink bandwidth and downlink bandwidth differs for at least one spoke.